AMENDMENTS TO THE CLAIMS:

Kindly cancel claims 1-55, 58-60, 65-67, 70, 72, 74, 79, 80, 88, 91, 92, 94-98, 100 and 104-123, without prejudice. Please amend claims 56, 57, 61-64, 68, 69, 71, 73, 75-78, 81, 83, 84, 89, 93, 101 and 102 as set forth below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claims 1-55 (cancelled)

Claim 56 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said data lines, said common electrode and said pixel electrode are bent by an odd number equal to or greater than 3 in each of pixels.

Claim 57 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines.

HAYES SOLOWAY P.C.
330 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said data lines, said common electrode and said pixel electrode are bent by N in each of pixels, said N being defined in accordance with the equation (A):

$$30\ [\mu m] \leqq L/(N+1)\ [\mu m] \leqq 40[\mu m] \quad (A)$$

wherein L indicates a length of an opening.

Claim 58 - 60 (cancelled)

Claim 61 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein a distance along a substrate between one of ends of said black matrix layer facing said data lines and an end of said data lines, located opposite to said one of ends of said black matrix layer, is equal to or greater than 4 μm in a cross-section taken along a plane perpendicular to a direction in which said data lines extend.

Claim 62 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 60~~ comprising:

a first substrate;

HAYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said black matrix layer facing said data lines is bent in line with said data lines, and wherein a distance along a substrate between one of ends of said black matrix layer facing said data lines and an end of said data lines, located opposite to said one of ends of said black

HAYES SOLOWAY P.C.
10 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

matrix layer, is equal to or greater than 4 μm in a cross-section taken along a plane perpendicular to a direction in which said data lines extend.

Claim 63 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said black matrix layer is formed on said second substrate, and said black matrix layer facing said data lines overlaps said data lines anywhere by 4 μm or greater, when viewed from above.

Claim 64 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 59~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines.

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said black matrix layer facing said data lines is formed in zigzag, and wherein said black matrix layer is formed on said second substrate, and said black matrix layer facing said data lines overlaps said data lines anywhere by 4 μm or greater, when viewed from above.

Claims 65 - 67 (cancelled)

Claim 68 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

further comprising a reverse-rotation preventing structure in a first pixel area in which all liquid crystal molecules are rotated in the same direction, for preventing liquid crystal molecules from rotating in a direction opposite to said same direction,

said reverse-rotation preventing structure including an auxiliary electrode to which a voltage equal to a voltage of at least one of said pixel electrode and said common electrode is applied such that an initial alignment orientation of liquid crystal molecules overlaps a direction of an electric field generated in said first pixel area in all areas in said pixel areas, if said initial alignment orientation rotates by an acute angle.

Claim 69 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

further comprising an isolated floating electrode composed of a layer of which both said gate electrode and said drain electrode are composed,

said isolated floating electrode overlapping said common or pixel electrode at bending portions of said zigzag-shaped common or pixel electrode with said insulating layer being

YES SOLOWAY P.C.
) W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
CHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

sandwiched therebetween, and having an extension extending in a direction in which said bending portions project, along an boundary between said first and second sub pixel areas.

Claim 70 (cancelled)

Claim 71 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 70~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

YES SOLOWAY P.C.
W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
AX. 520.882.7643

75 CANAL STREET
CHESTER, NH 03101
EL. 603.668.1400
AX. 603.668.8567

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers.

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said zigzag-shaped data lines include linear portions inclining towards the left and right from a direction in which said data lines extend, and wherein said black matrix layer is formed on said second substrate, and said black matrix layer facing said data lines and formed in a line has a width greater anywhere than a minimum width Dmin defined by the following equation:

$$Dmin=D+LS \times \tan\theta - (D-8) \times 2[\mu m]$$

wherein D indicates a width of said data lines, LS indicates a length obtained when said linear portions are projected towards said direction in which said data lines extend, and θ indicates an angle formed between said direction in which said data lines extend and said linear portions.

Claim 72 (cancelled)

Claim 73 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 72~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines.

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said zigzag-shaped data lines includes first linear portions extending in parallel with a direction in which said data lines extend, and second linear portions inclining towards the left and right from said direction in which said data lines extend, and wherein said black matrix layer is formed on said second substrate, and said black matrix layer facing said data lines and formed in a line has a width greater anywhere than a minimum width Dmin defined by the following equation:

$$Dmin=D+LS \times \tan\theta - (D-8) \times 2[\mu m]$$

wherein D indicates a width of said data lines, LS indicates a length obtained when said second linear portions are projected towards said direction in which said data lines extend, and

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

θ indicates an angle formed between said direction in which said data lines extend and said second linear portions.

Claim 74 (cancelled)

Claim 75 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 70~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
WCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said zigzag-shaped data lines include linear portions inclining towards the left and right from a distance in which said data lines extend, and further comprising a floating light-impermeable film composed of opaque metal, said floating light-impermeable film overlapping said data lines at recessions of bending portions of said data lines.

Claim 76 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes;

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

further comprising a projection projecting from a bending portion of each of said zigzag-shaped common electrode overlapping said zigzag-shaped data lines.

Claim 77 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines.

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said common electrode is wider than said data lines at opposite ends in a width-wise direction thereof by 1.5 μm or greater.

Claim 78 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines.

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said black matrix layer has a width smaller than a width of said data lines, and overlaps said data lines in its entire length.

Claims 79 - 80 (cancelled)

Claim 81 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

AYES SOLOWAY P.C.
0 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
NCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

further comprising an interlayer insulating layer formed in a layer located immediately below said common electrode, and a pixel auxiliary electrode comprised of a single or a plurality of layer(s) formed below said interlayer insulating layer,

said pixel auxiliary electrode being electrically connected to said source electrode, and being kept at a voltage equal to a voltage of said pixel electrode,

said pixel auxiliary electrode being composed of opaque metal.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 82 (original): The in-plane switching mode active matrix type liquid crystal display device as set forth in claim 81, wherein said pixel auxiliary electrode is at least partially formed below said pixel electrode formed in a layer in which said common electrode is formed, and having a plurality of comb-teeth.

Claim 83 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones.

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

further comprising an interlayer insulating layer formed in a layer located immediately below said common electrode, and a common auxiliary electrode comprised of a single or a plurality of layer(s) formed below said interlayer insulating layer,

said common auxiliary electrode being electrically connected to said common electrode lines, and being kept at a voltage equal to a voltage of said common electrode,

said common auxiliary electrode being composed of opaque metal.

Claim 84 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 83~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

HAYES SOLOWAY P.C.
10 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said common auxiliary electrode is formed below said common electrode having a plurality of comb-teeth.

Claim 85 (previously presented): The in-plane switching mode active matrix type liquid crystal display device as set forth in claim 82, further comprising a reverse-rotation preventing structure in a first pixel area in which all liquid crystal molecules are rotated in the same direction, for preventing liquid crystal molecules from rotating in a direction opposite to said same direction,

at least a part of edges of said pixel auxiliary electrodes and said common electrode lines being formed oblique such that an initial alignment orientation of liquid crystal molecules overlaps a direction of an electric field generated in said first pixel area in all areas in said pixel areas, if said initial alignment orientation rotates by an acute angle.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 86 (previously presented): The in-plane switching mode active matrix type liquid crystal display device as set forth in claim 82, wherein said zigzag-shaped common and pixel electrodes define a first pixel area in which liquid crystal molecules rotate in two directions in a pixel,

some of said pixel auxiliary electrodes having a projection projecting from a bending portion of each of said zigzag-shaped pixel electrode and in a direction in which said bending portion projects, along a boundary between two different pixel areas in which liquid crystal molecules rotate in different directions.

Claim 87 (previously presented): The in-plane switching mode active matrix type liquid crystal display device as set forth in claim 84, wherein said zigzag-shaped common and pixel electrodes define a first pixel area in which liquid crystal molecules rotate in two directions in a pixel,

some of said common auxiliary electrodes having a projection projecting from a bending portion of each of said zigzag-shaped common electrode, in a direction in which said bending portion projects, along a boundary between two different pixel areas in which liquid crystal molecules rotate in different directions, for stabilizing rotation of said liquid crystal molecules between said two different pixel areas.

Claim 88 (cancelled)

Claim 89 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 88~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said pixel electrode is formed of a second metal layer of which said data lines are formed, and wherein said pixel electrode is formed of a second metal layer of which said drain electrode is formed, in an area in which an image is displayed, and a portion of said common electrode other than a portion composed of transparent metal and overlapping said data lines is formed of a first metal layer of which said gate electrode is formed.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 90 (original): The in-plane switching mode active matrix type liquid crystal display device as set forth in claim 89, further comprising an interlayer insulating film sandwiched between said data lines and said common electrode overlapping said data lines and composed of transparent metal, said interlayer insulating film being formed only below said common electrode.

Claims 91 - 92 (cancelled)

Claim 93 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 53~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

further comprising an interlayer insulating film sandwiched between said data lines and said common electrode overlapping said data lines and composed of transparent metal, said interlayer insulating film being comprised of a first film comprised of an inorganic film and a second film comprised of an organic film and covering said first film therewith.

Claims 94 - 98 (cancelled)

Claim 99 (original): The in-plane switching mode active matrix type liquid crystal display device as set forth in claim 81, wherein a storage capacity is formed between said common electrode lines comprised of a first metal layer of which said gate electrode is formed, and a pixel auxiliary electrode comprised of a second metal layer of which said drain electrode is formed.

Claim 100 (cancelled)

Claim 101 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 88~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode,

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

wherein said pixel electrode is formed of a second metal layer of which said data lines are formed, and wherein a storage capacity is formed between said pixel electrode comprised of said second metal layer of which said drain electrode is formed, and said common electrode lines comprised of said first metal layer of which said gate electrode is formed.

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 102 (currently amended): [[The]] An in-plane switching mode active matrix type liquid crystal display device ~~as set forth in claim 88~~ comprising:

a first substrate;

a second substrate located opposing said first substrate; and

a liquid crystal layer sandwiched between said first and second substrates,

wherein said first substrate includes:

a thin film transistor having a gate electrode, a drain electrode and a source electrode;

a pixel electrode each associated to a pixel to be driven;

a common electrode to which a reference voltage is applied;

data lines;

a scanning line; and

common electrode lines,

said gate electrode is electrically connected to said scanning line, said drain electrode is electrically connected to said data lines, said source electrode is electrically connected to said pixel electrode, and said common electrode is electrically connected to said common electrode lines,

said pixel electrode is in a zigzag form and almost equally spaced away from adjacent ones,

said common electrode is in a zigzag form and almost equally spaced away from adjacent ones,

two-directional electric fields almost parallel with a surface of said first substrate are applied across said pixel electrode and said common electrode.

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

said in-plane switching mode active matrix type liquid crystal display device includes a first pixel area to which an electric field having a first direction is applied and in which molecular axes of liquid crystal in said liquid crystal layer are rotated in a first rotational direction in a plane parallel with a surface of said first substrate, and a second pixel area to which an electric field having a second direction is applied and in which said molecular axes are rotated in a second rotational direction which is different from said first rotational direction, in a plane parallel with a surface of said first substrate,

said common electrode is composed of transparent material, and is formed on a layer located closer to said liquid crystal layer than said data lines,

said common electrode entirely overlaps said data lines with an insulating layer being sandwiched therebetween except an area where said data lines are located in the vicinity of said scanning line,

said in-plane switching mode active matrix type liquid crystal display device further includes a light-impermeable layer in an area where said common electrode entirely overlaps the data lines,

said light-impermeable layer is formed on said second substrate or on said first substrate such that said light-impermeable layer and said liquid crystal layer are located at the same side with respect to said data lines and that said light-impermeable layer faces said data lines,

said light-impermeable layer is comprised of a black matrix layer or multi-layered color layers,

said black matrix layer or said multi-layered color layers has a width smaller than a width of said common electrode overlapping said data lines,

said data lines extend in a zigzag along said pixel electrode,

HAYES SOLOWAY P.C.
30 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

wherein said pixel electrode is formed of a second metal layer of which said data lines are formed, and wherein said zigzag-shaped common and pixel electrodes define a first pixel area in which liquid crystal molecules are rotated in two directions in a pixel, and

some of at least one of said common and pixel electrodes have a projection projecting from a bending portion of each of said zigzag-shaped common electrode, in a direction in which said bending portion projects, along a boundary between two different pixel areas in which liquid crystal molecules rotate in different directions, for stabilizing rotation of said liquid crystal molecules between said two different pixel areas.

Claim 103 (original): The in-plane switching mode active matrix type liquid crystal display device as set forth in claim 93, further comprising an interlayer insulating film formed between said data lines and said common electrode, said interlayer insulating film being comprised of a first film comprised of an inorganic film, and a second film covering said first film therewith and comprised of an organic film, said first film having a thickness equal to or greater than 0.25 μm.

Claims 104 - 123 (cancelled)

HAYES SOLOWAY P.C.
80 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567